

REMARKS

Claims 8, 9, 19, 20, 25 and 29-38 are pending in the application. The Examiner rejected Claims 8, 9, 19, 20, 25 and 29-36 under 35 U.S.C. §112, second paragraph, as being incomplete. The Examiner rejected Claims 8, 9, 19, 20, 25 and 29-36 under 35 U.S.C. §101, as being directed to non-statutory subject matter. The Examiner has rejected Claim 19 under 35 U.S.C. §102(b) as being anticipated by Citation #4 (“Text proposal regarding TFCI coding for FDD”, TSGR1#7(99)D69, August 30 - September 3, 1999). The Examiner has rejected Claim 8 under 35 U.S.C. §103(a) as being unpatentable over Citation #4. The Examiner has rejected Claim 9 and 20 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 in view of Claydon et al. (U.S. Patent 5,742,622). The Examiner has rejected Claims 25, 29-31, 33, 34, 36 and 38 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 in view of Citation #7 (“Harmonization impact on TFCI and New Optimal Coding for extended TFCI with almost no Complexity increase”, TSGR#6(99)970, July 13-16, 1999), and further in view of Claydon et al.

The Examiner rejected Claims 8, 9, 19, 20, 25 and 29-36 under 35 U.S.C. §112, second paragraph, as being incomplete, and bases this rejection on M.P.E.P §2172.01. Section 2172.01 is entitled “Unclaimed Essential Matter”, and states, “a claim which fails to **interrelate essential elements** of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph.” This section goes on to quote *Ex parte Nolden*, 149 USPQ 378, 380 (Bd. Pat. App. 1965) “[I]t is **not essential** to a patentable combination that there be interdependency between the elements of the claimed device or that all the elements operate concurrently toward the desired result”, and *Ex parte Huber*, 148 USPQ 447, 448-49 (Bd. Pat. App. 1965) “A claim does **not necessarily fail** to comply with 35 U.S.C. 112, second paragraph where the various elements do not function simultaneously, are not directly functionally related, do not directly intercooperate, and/or serve independent purposes.” The Examiner is incorrect in asserting this rejection on two grounds. First, and most obvious, the apparatus or method of the claims of the present application is practiced in a mobile communication system. No “essential element” is missing. Second, M.P.E.P §2172.01 does not even apply to this situation as no interdependency, no direct functional relation, or no direct intercooperation, is needed. Based on at least the foregoing, withdrawal of the rejections of Claims 8,

9, 19, 20, 25 and 29-36 is respectfully requested.

The Examiner rejected Claims 8, 9, 19, 20, 25 and 29-36 under 35 U.S.C. §101, as being directed to non-statutory subject matter. The Examiner alleges that these claims are a computer program or a mathematical algorithm. Claims 8, 9, 25 and 32-36 are directed to an apparatus, and by definition, an apparatus is neither a computer program nor a mathematical algorithm. Claims 19, 20 and 29-31 are directed to a process, a method, for encoding. M.P.E.P § 2106 Patentable Subject Matter - Computer-Related Inventions deals directly with computer related inventions and does not exclude from patentability the method claimed in Claims 19, 20 and 29-31. Further, regarding “mathematical algorithms” M.P.E.P. §2106 clearly states, “Office personnel will **no longer** begin examination by determining if a claim recites a “mathematical algorithm.” Rather they will review the complete specification, including the detailed description of the invention, any specific embodiments that have been disclosed, the claims and any specific, substantial, and credible utilities that have been asserted for the invention”, and goes on to state, “Claims drawn to a long-distance telephone billing process containing mathematical algorithms were held to be directed to patentable subject matter because “the claimed process applies the Boolean principle to produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle.” *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999).” As all of the claims of the present application produce a useful, concrete and tangible result, it is clear all of the claims of the present application are drawn to statutory subject matter. Based on at least the foregoing, withdrawal of the rejections of Claims 8, 9, 19, 20, 25 and 29-36 is respectfully requested.

The Examiner has rejected independent Claim 19 under 35 U.S.C. §102(b) as being anticipated by Citation #4 (“Text proposal regarding TFCI coding for FDD”, TSGR1#7(99)D69, August 30 - September 3, 1999). As the Examiner has not addressed the arguments presented in the Response filed October 19, 2004, Applicants’ respectfully request a proper reply from the Examiner. Presented in the October 2004 Response was that Claim 19 of the present application relates to (48,10) coding. The references, Citation #4 and Citation #7, relate to (32,10) coding for improving (32,6) or (16,5) TFCI coding. Block coding/Reed-Muller coding is defined by a unique sequence, puncturing pattern and so on in accordance with a coding length. That is, when a coding length is

changed, a completely different code is required by a channel that requires changing the entire coding structure. Accordingly, Claim 19 of the present application, which describes a new sequence and puncturing pattern for (48,10) coding, is distinguished from the references. Based on at least the foregoing, withdrawal of the rejection of Claim 19 is respectfully requested.

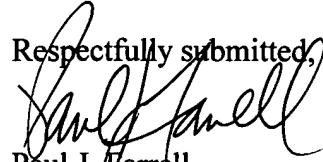
The Examiner has rejected independent Claim 8 under 35 U.S.C. §103(a) as being unpatentable over Citation #4. As the Examiner has not addressed the arguments presented in the Response filed October 19, 2004, Applicants' respectfully request a proper reply from the Examiner. Presented in the October 2004 Response was that the Examiner stated that the specific mask sequences and puncturing patterns would be obvious to one skilled in the art. It was submitted that the specific mask sequences and puncturing patterns recited in the claims of the present application are not obvious. It was further submitted that the claims of the present application relate to (48,10) coding. The references, Citation #4 and Citation #7, relate to (32,10) coding for improving (32,6) or (16,5) TFCI coding. Block coding/Reed-Muller coding is defined by a unique sequence, puncturing pattern and so on in accordance with a coding length. As stated above, when a coding length is changed, a completely different code has to be designed by a channel, thus changing the entire coding structure. Accordingly, Claim 8 of the present application, which describes a new sequence and puncturing pattern for (48,10) coding, is not rendered obvious by and is distinguished from the references. Based on at least the foregoing, withdrawal of the rejection of Claim 8 is respectfully requested.

The Examiner has rejected independent Claims 25 and 29 under 35 U.S.C. §103(a) as being unpatentable over Citation #4 in view of Citation #7 ("Harmonization impact on TFCI and New Optimal Coding for extended TFCI with almost no Complexity increase", TSGR#6(99)970, July 13-16, 1999), and further in view of Claydon et al. Again, as the Examiner has not addressed the arguments presented in the Response filed October 19, 2004, Applicants' respectfully request a proper reply from the Examiner. Presented in the October 2004 Response was that the Examiner stated that the specific mask sequences and puncturing patterns would be obvious to one skilled in the art. It was submitted that the specific mask sequences and puncturing patterns recited in the claims of the present application are not obvious. It was also submitted that the claims of the present

application relate to (48,10) coding. The references, Citation #4 and Citation #7, relate to (32,10) coding for improving (32,6) or (16,5) TFCI coding. Block coding/Reed-Muller coding is defined by a unique sequence, puncturing pattern and so on in accordance with a coding length. As stated above, when a coding length is changed, a completely different code has to be designed by a channel, thus changing the entire coding structure. Accordingly, Claims 25 and 29 of the present application, which describes a new sequence and puncturing pattern for (48,10) coding, are not rendered obvious by and are distinguished from the references. The addition of Claydon et al. does not cure the defects of Citation #4 or Citation #7. Based on at least the foregoing, withdrawal of the rejection of Claims 25 and 29 is respectfully requested.

Independent Claims 8, 19, 25 and 29 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 9, 20 and 30-38, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 9, 20 and 30-38 is respectfully requested. Furthermore, new dependent Claims 32-38 are believed to be patentable for at least the reasons given above with respect to the independent claims from which they depend.

Accordingly, after entry of this Response, all of the claims pending in the Application, namely, Claims 8, 9, 19, 20, 25 and 29-38, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

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